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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/527,873	07/19/2005	Gabriele Cruciani	P-2564	2043
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EXAMINER				
LEIVA, FRANK M				
ART UNIT		PAPER NUMBER		
3714				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/527,873

**Applicant(s)**

CRUCIANI, GABRIELE

**Examiner**

FRANK M. LEIVA

**Art Unit**

3714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 January 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 15-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 15-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☐ Information Disclosure Statement(s) (PTO/SE/US)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Acknowledgements***

1. The examiner acknowledges cancellation of claims 10-14 and newly added claims 18 and 19 on applicant's submission filed 02 January 2008, now pending claims 15-19.

### ***Response to Arguments***

2. Applicant's arguments; see remarks filed 02 January 2008, with respect to the rejection(s) under 35 U.S.C §102(b) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of King Jr. and further in view of Gray (US 4,718,670).
3. Regarding King Jr. has a filing date of 14 September 2001 giving it a 35 U.S.C. §102(e) date.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
5. **Claims 15-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over King JR. (US 2003/0054905 A1) in view of Gray (US 4,718,670).**
  1. **Regarding claim 15; King discloses:**  
A system for detecting a goal, (¶ [0013]).

An inflatable ball having a bladder and outer covering; transmitter located inside the bladder of said inflatable ball, said transmitter weighing less than ten grams, (§§[0045]), inherent to the game is the unmentioned weight of the sensor, which would have to be negligible so as to obeyed by the official rules governing the weight of the ball.

A transceiver positioned adjacent a goal so as to detect said transmitter when said inflatable ball has completely crossed a goal line, (Fig. 15 & §§[0045]).

An electronic device worn by a referee capable of receiving a signal from said transceiver, whereby a goal is confirmed by the referee, (Fig. 16 & §§[0034]).

An electronic cabin housing an official and additionally receiving the signal from said transceiver, whereby a decision of the referee may be checked, (§§[0007-0008]), where inherent to the game of football is the referee videotape review hut which were all the signals pursuant to a decision by the referees are reviewed.

King Jr. fails to disclose a passive RF device as a signal generator inside the ball. Yet Gray discloses the use of a Passive RF sensing device being used inside a ball to detect the balls passing of a threshold.

Because both King Jr. and Gray teach methods of detecting a ball's movement, it would have been obvious to one skill in the art at the time of applicant's invention to substitute the method of a battery operated transmitter for the method of a passive non-battery required transceiver to achieve the predictable result of tracking the movements of a ball in a sports arena.

2. **Regarding claim 16;** King discloses a transceiver positioned at least 30 cm inside the goal line, whereby interference from a goalkeeper or other players is prevented, (§§ [0014 & 0037]), where the sensors are place within the perimeter to be triggered and in positions above and below the court so as to avoid player interference.

3. **Regarding claim 17; King discloses:**

- a. A goal detection system for accurately detecting a goal in a football or soccer game, (Fig. 15 & §§ [0045]).

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b. A transceiver positioned at least 30 centimeters behind a goal line so as to detect said passive sensor when said inflatable ball has completely crossed the goal line, whereby detection of the passive sensor is improved and interference from a goalkeeper or players is reduced, (Fig. 15 & ¶ [0045]).

c. A receiver, worn by a game official and capable of providing a vibrating signal to the game official when said passive sensor is detected by said transceiver,

whereby the occurrence of a goal is capable of being confirmed, (Fig. 16 & ¶ [0034]), understanding that a signal whether it is visual or motion would be design choice, and that the wrist-board performs the function of signaling all game faults to the referee.

An inflatable ball having a bladder and outer covering; a passive sensor located inside the bladder of 'said inflatable ball, said passive sensor weighing less than ten grams, ¶ [0045]), inherent to the game is the unmentioned weight of the sensor, which would have to be negligible so as to obeyed by the official rules governing the weight of the ball.

4. **Regarding claim 18;** King discloses a method of detecting a goal in a football or soccer game comprising the steps of:

positioning a transceiver at least 30 centimeters behind a goal Line so as to detect the sensor when the inflatable ball has completely crossed a goal line, whereby detection of the sensor is improved and interference from a goalkeeper or players is reduced, (fig. 15 and ¶ [0045]) describing King's sensor array located around the perimeter of the court or field and place for optimum reading of the signals, which according to the brand and accuracy of the transceivers the sensor will inherently be located and calibrated as per specifications; and

providing a signal to a game official when the sensor is detected by the transceiver, whereby the occurrence of a goal is capable of being confirmed, (claim 2).

King fails to disclose the use of a passive sensor where as Gray discloses the details of an older model passive circuit molding a passive sensor weighing less than

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ten grams completely inside the thickness of an internal bladder during pressing of the internal bladder for an inflatable ball, (col. 2:49-67) where the sensor is encased (molded) between to layers of rubber.

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to combine the well known technique of Gray to add a passive sensor that requires no batteries, into the invention of King Jr. Yielding a predictable field sensor array using a passive sensor system.

5. **Regarding claim 19:** King discloses a method of manufacturing an inflatable ball used in detecting a goal in a football or soccer game, (§ [0044-0048]). While King fails to disclose a passive sensor network; Gray discloses using a passive sensor system for tennis and discloses the makings of the interior of the ball including molding a passive sensor weighing less than ten grams completely inside the thickness of an internal bladder during pressing of the internal bladder; and covering the internal bladder with an external covering, whereby the passive sensor is securely held and protected from damage within the internal bladder, (col. 2:49-67), wherein not mentioned is the weight of the sensor but includes that it is light weight and made of thin foil, since the ten grams in the present application is arbitrary according to the specifications, examiner find the ten gram a design choice. It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to improve King JR's invention by using the passive sensor network of Grays invention and producing the predictable result of a football with molded non-ferrous foil for a passive transceiver sensor network.

6. **Examiner's Note:** Examiner has cited paragraphs and figures in the references as applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant, in preparing the responses, to fully consider the references in entirety as potentially teaching all or part of the claimed

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invention, as well as the context of the passage as taught by the prior art or disclosed by the examiner.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to FRANK M. LEIVA whose telephone number is (571)272-2460. The examiner can normally be reached on M-Th 9:30am - 5:pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert E. Pezzuto can be reached on (571) 272-6996. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Robert E Pezzuto/

Supervisory Patent Examiner, Art Unit 3714

FML 07/14/2008